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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) H0003993-5703
<p>I hereby certify that this correspondence is being transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (571) 273-6300.</p> <p>Signature <u>Alexander B. Ching</u></p> <p>Typed or printed Name <u>Alexander B. Ching</u></p>		<p>In re Application of Timothy A. HINDLE</p> <p>Application Number 10/816,007</p> <p>Filed March 31, 2004</p> <p>For: A VISCOUS ISOLATION AND DAMPING STRUT UTILIZING A FLUID MASS EFFECT</p> <p>Group Art Unit 3683</p> <p>Examiner C. P. Schwartz</p>
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s).</p> <p>Note: No more than five (5) pages may be provided.</p> <p>I am the  <input type="checkbox"/> applicant/inventor.  <input type="checkbox"/> assignee of record of the entire interest.          See 37 CFR 3.71. Statement under 37 CFR 3.73(b)          is enclosed. (Form PTO/SB/96)  <input checked="" type="checkbox"/> attorney or agent of record.          Registration number <u>41,669</u>  <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34(a).          Registration number if acting under 37 CFR 1.34(a). <u></u></p> <p><u>Alexander B. Ching</u>          Signature          Alexander B. Ching          Printed Name          (480) 385-5060          Telephone Number  <u>June 19, 2006</u>          Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</p> <p><input checked="" type="checkbox"/> Total of <u>1</u> forms are submitted.</p>		

This collection of information is required by 37 CFR 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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UTILITY PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Appl. No.	:	10/816,007	Confirmation No. 9568
Applicant	:	Timothy A. Hindle	
Filed	:	March 31, 2004	
TC/A.U.	:	3683	
Examiner	:	Schwartz, Christopher P.	
Docket No.	:	H0003993-5703	
Title	:	A VISCOUS ISOLATION AND DAMPING STRUT UTILIZING A FLUID MASS EFFECT	

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**ARGUMENTS ACCOMPANYING PRE-APPEAL BRIEF REQUEST FOR REVIEW**

I. Status of Claims

Claims 1-25 remain pending in this application with claims 1, 8, 16, and 21 being the independent claims.

II. Rejections under 35 U.S.C. §103(a)

Claims 1-25 stand rejected under 35 U.S.C. §103(a) as unpatentable over *Davis* in view of *Jones* and/or *Kawamata*. The Examiner argues that *Davis* discloses a damper and isolator except for a discussion of effective fluid mass and using the effective fluid mass as a tunable parameter and the adjustment of the passages to tune the damper. The Examiner argues that the tuning of fluid mounts is well known. Also, the Examiner argues that *Jones* and *Kawamata* teach a fluid inertial effect.

#### A. OVERVIEW.

Before presenting the main arguments, the Applicant would like to note that many of the arguments discussed below have been made in this case previously, but have been essentially ignored by the Examiner. For example, the Examiner has never individually addressed arguments regarding patentability of the dependent claims. For this reason alone, the finality of the last Office Action should be withdrawn and a full examination of all pending claims should be provided.

#### B. THE PRIOR ART TEACHES AWAY FROM THE PROPOSED INVENTION.

The Examiner argues that it would be obvious to adjust one of the well known variable parameters in the device of *Davis* as taught by *Jones* or *Kawamata*, to achieve a damper which makes use of fluid inertia to isolate a specific range of vibrations. However, note that *Davis* does not disclose, teach or suggest a fourth tunable parameter or the use of an effective fluid mass that depends on the damping annulus (see paragraph 28-54 of the specification). Indeed, *Davis* teaches the minimization of any damping effects beyond those of the first three parameters. As disclosed by *Davis* "the resistance to flow through the secondary fluid path is made small as compared to the primary damping annulus to minimize damping by such secondary fluid path" (Column 7, lines 1-5 of *Davis*). Thus, *Davis* teaches away from the proposed combination.

Neither *Jones* nor *Kawamata* discloses, teaches, or suggests the tunable parameter as disclosed in the present invention. Indeed, *Jones* and *Kawamata* are cited for the proposition that it is well known to vary parameters of fluid mounts and dampeners by adjusting cross sectional areas of fluid paths and pistons. Since *Davis* fails to disclose, teach or suggest a fourth tunable parameter, there are no "well-known" parameters of *Davis* that can be simply adjusted to yield the limitations of the claims of the present invention.

## C. THE INDEPENDENT CLAIMS.

Claim 1, recites, in part, "wherein the ratio of the cross sectional area of the first fluid containment chamber and the second fluid containment chamber to the cross sectional area of the annular damping path is chosen to produce an effective mass of the fluid to enhance vibration damping and isolation." As the Examiner points out, this limitation is not found in *Davis*. The addition of *Jones* fails to disclose, teach, or suggest an effective mass. The fluid "slug" in *Jones* is simply an amount of fluid. Additionally, nowhere in *Jones* is the ratio of the cross sectional area of a first and second fluid containment chamber and the annular damping path disclosed. While *Jones* may teach adjusting known parameters, such as those disclosed in *Davis*, *Jones* does not disclose, teach, or suggest the adjustment of the parameters as in claim 1 of the present invention.

*Kawamata* does mention the determination of an effective fluid mass. However, in *Kawamata* the effective fluid mass is caused by a discharge tube that feeds two fluid containers. Thus, *Kawamata* does not show a damping system "wherein the ratio of the cross sectional area of the first fluid containment chamber and the second fluid containment chamber to the cross sectional area of the annular damping path is chosen to produce an effective mass of the fluid to enhance vibration damping and isolation."

As discussed previously, all claim limitations must be taught or suggested, including which of the parameters that are adjusted. A *prima facie* case for a section 103 rejection can not be made by simply arguing that art generically teaches the adjustment of parameters. The prior art combination must show all claim limitations, which includes showing that the parameters being adjusted to enhance damping and isolation is the chosen ratio "of the cross-sectional area of the first fluid containment chamber and the cross-sectional area of the second fluid containment chamber to the cross sectional area of the annular damping path."

Considering independent claim 8, neither the *Davis/Jones* combination nor the *Davis/Kawamata* combination discloses, teaches or suggests an "isolator comprising four tunable parameters." (emphasis added). *Davis* discloses only three tunable parameters and *Davis* does not disclose, teach or suggest the addition of a further tunable parameter. Indeed, as discussed

previously, *Davis* teaches away from a fourth tunable parameter. *Jones* and *Kawamata* are silent on tunable parameters and fail to disclose this limitation in combination with *Davis*.

Further, as discussed in conjunction with claim 1, the proposed combination fails to disclose, teach or suggest that one of the tunable parameters comprises "an effective fluid mass, the effective fluid mass based on a ratio of a cross sectional area of a first fluid containment chamber and a second fluid containment chamber to a cross sectional area of an annular damping path." For at least these reasons, claim 8 is in condition for allowance.

Independent claim 16, as amended, recites, in part, "a fourth parameter comprising the ratio of a cross sectional area of the primary-isolation means to a cross sectional area of the damping path, the ratio chosen to provide a fluid mass effect, the fluid mass effect determined by an effective mass of the fluid, the effective mass of the fluid greater than a true fluid mass." This is similar to the limitation discussed previously in conjunction with claim 1 and claim 8. For the reasons cited in conjunction with claims 1 and 8, the proposed combination of *Davis* with *Jones* or *Kawamata* fails to disclose, teach or suggest all of the limitations of claim 16.

Considering claim 21, neither the proposed *Davis/Jones* combination nor the proposed *Davis/Kawamata* combination discloses, teaches, or suggests, "a plurality of isolation struts comprising four tunable parameters" and "an effective fluid mass, the effective fluid mass based on a ratio of a cross sectional area of a first fluid containment chamber and a second fluid containment chamber to a cross sectional area of an annular damping path." For the reasons cited in conjunction with claims 1, 8 and 16, the proposed combination of *Davis* with *Jones* or *Kawamata* fails to disclose, teach or suggest all of the limitations of claim 21. For at least these reasons, claim 21 is in condition for allowance.

#### D. THE DEPENDENT CLAIMS.

Arguments for the allowability of claims 2, 3, 5, 6, 10, 15, 18 and 19 have been made repeatedly by the Applicant but have been dismissed by the Examiner without any substantive discussion. For example, the Examiner has never explained how the proposed prior art combinations disclose, teach or suggest active tuning of the effective masses of fluid by altering the cross section of the damping path or by altering the cross sectional area of the first fluid

containment chamber or second fluid containment chamber as in claims 2, 3, and 15. Further, the Examiner has failed to explain how the proposed combinations disclose, teach or suggest basing the effective mass of the fluid, at least in part, on the mass of the payload as in claims 5 and 10. Additionally, the Examiner has failed to explain how the proposed combinations disclose, teach or suggest that the fluid mass effect in the present invention gives the apparatus a roll-off of -60 dB per decade as in claims 6, 15, and 19. For additional argumentation on this subject, attention is directed to any of Applicant's previous responses. None of these arguments have been individually responded to by the Examiner. The Applicant once again argues that the limitations of these dependent claims are not found in the proposed prior art combinations and, therefore, the claims are in condition for allowance.

### III. Conclusion

In view of the foregoing, it is submitted that the Examiner's reliance upon *Davis* in combination with *Jones* and/or *Kawamata* does not support the rejection of claims 1-25. As such, the above-noted rejections should be withdrawn and the Applicant requests that the reviewing panel find that the present application is in condition for allowance.

Also included with this pre-appeal brief is payment for a one-month extension of time. If for some reason the Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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Dated: June 19, 2006

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